CLAIMS

What is claimed is:

1	1.	A method of making a golf ball comprising:
2		a. cooling a golf ball subassembly such that the golf ball subassembly
3	unde	rgoes a volumetric reduction; and
		b. applying a cover layer over the volumetrically reduced golf ball subassembly.
	2.	The method of claim 1, further including the step of forming the golf ball
2	suba	ssembly before the step of cooling, wherein forming the golf ball subassembly includes
	form	ing a core.
	3.	The method of claims 2, wherein the step of forming the core includes compression
	mold	ling a polybutadiene base material.
	4.	The method of claim 2, wherein the step of forming the golf ball subassembly
)	furth	er includes forming at least one intermediate layer on the core.
	5.	The method of claim 4, wherein the step of forming each intermediate layer includes
2	comp	pression molding or injection molding a thermoplastic or thermoset material over the
}	core.	
	6.	The method of claim 1, wherein the step of cooling includes decreasing the
2	temp	erature of the golf ball subassembly to a cooling temperature of less than about 75°F.
	7.	The method of claim 1, wherein the step of cooling includes decreasing the
•		erature of the golf ball subassembly to a cooling temperature of less than about 50°F.
_	тетр	relature of the gon ban subassembly to a cooming temperature of tess than about 30 T.
	8.	The method of claim 6, wherein the cooling temperature is between about -10°F and
2	abou	t 40°F.

- The method of claim 7, wherein the step of cooling further includes maintaining the 9. 1 golf ball subassembly at the cooling temperature for greater than 20 minutes before the step 2 3 of applying the cover layer. The method of claim 7, wherein the step of cooling further includes maintaining the 10. 1 golf ball subassembly at the cooling temperature for greater than 1 hour before the step of 2 applying the cover layer. 3 The method of claim 1, wherein the volumetric reduction is at least about 1%. 11. The method of claim 1, wherein the step of applying the cover layer is a casting 12. 1 2 process. The method of claim 1, wherein the step of applying the cover layer is a reaction 13. 1 injection molding process. 2 The method of claim 1, wherein the step of applying the cover layer further includes: 1 14. providing a first mold half and a second mold half, the first and second mold halves 2 have cavities therein: 3 heating the mold halves to a predetermined temperature; 4 adding a cover material to the first mold half cavity; 5 allowing the cover material to gel; 6 inserting a golf ball subassembly into the first mold half cavity; 7 adding the cover material to the second mold half cavity; 8 mating the second mold half with the first mold half so that the cover material and 9 the golf ball subassembly are contained within the cavities in the mold halves. 10
 - 15. The method of claim 14, further including the step of curing the cover material to form the cover layer after the step of mating the second mold half.

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1	16.	The method of claim 15, wherein the step of curing the cover material further			
2	includes:				
3		i. maintaining the mold halves at a first temperature for a first predetermined			
4		time;			
5		ii. heating the mold halves to a second temperature greater than the first			
6		predetermined temperature for a second predetermined time; and			
7		iii. maintaining the mold halves at a third temperature for a third predetermined			
8		time.			
1	17.	A method of curing a golf ball cover comprising the steps of:			
2		 a. providing a covered golf ball subassembly in two mold halves; 			
3		b. maintaining the mold halves at a first temperature for a first predetermined time;			
5		c. heating the mold halves to a second temperature greater than the first			
6		predetermined temperature for a second predetermined time; and			
7		d. maintaining the mold halves at a third temperature for a third predetermined			
8		time.			
1	18.	The method of claim 17, wherein the first temperature has a value sufficient to allow			
2	the o	cover to initially cure.			
1	19.	The method of claim 17, wherein the first temperature is between about 70°F and			
2	abo	ut 110°F.			
1	20.	The method of claim 19, wherein the first predetermined time is between about 2			
2	min	utes and about 15 minutes.			
1	21.	The method of claim 17, wherein the first temperature is between about 70°F and			
2	abo	ut 90°F and the first predetermined time is between about 5 minutes and about 10			
3	min	nutes.			
1	22.	The method of claim 17, wherein the second temperature is greater than about			
2	120)°F			

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1 2	23. The method of claim 17, wherein the second temperature is between about 130°F and about 170°F.
1 2	24. The method of claim 17, wherein the second predetermined time is between about 2 minutes and about 10 minutes.
1 2 3	25. The method of claim 21, wherein the second temperature is between about 130°F and about 140°F and the second predetermined time is between about 3 minutes and about 7 minutes.
1 2	26. The method of claim 167, wherein the third temperature is less than the second temperature.
1 2	27. The method of claim 17, wherein the third temperature is between about 70°F and about 110°F.
1 2	28. The method of claim 17, wherein the third predetermined time is between about 5 minutes and about 15 minutes.
1 2	29. The method of claim 25, wherein the third temperature is between about 70°F and about 90°F and the third predetermined time is between about 10 and about 15 minutes.
1 2	30. The method of claim 17, wherein the second predetermined time is less than the first predetermined time and the third predetermined time.
1 2 3	 A method of making a golf ball comprising: a. cooling a golf ball subassembly such that the golf ball subassembly undergoes a volumetric reduction;
4	b. applying a cover layer in mold halves over the volumetrically reduced golf
5	ball subassembly to form a covered golf ball;
6	c. curing the layer including the steps of
. 7	i. maintaining the mold halves at a first temperature for a first
8	predetermined time;
9	ii. heating the mold halves to a second temperature greater than the first
10	predetermined temperature for a second predetermined time; and

11 12	iii. maintaining the mold halves at a third temperature for a third predetermined time.
1 2	32. The method of claim 31, wherein the step of maintaining the mold halves at a first temperature includes placing the mold halves in a first insulating chamber.
1 2	33. The method of claim 31, wherein the step of heating the mold halves to a second temperature includes placing the mold halves in a curing oven.
1 2	34. The method of claim 31, wherein the step of maintaining the mold halves at a third temperature includes placing the mold halves in a second insulating chamber.
1 2	35. The method of claim 31, further including the step of cooling the mold halves to a fourth temperature lower than the third temperature.
1 2	36. The method of claim 35, wherein the fourth temperature is between about 60°F and about 80°F.